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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

First Named  
Inventor : Tao Zhang et al.  
Appln. No. : 09/896,895  
Filed : June 29, 2001  
For : REAL-TIME AUTOMATIC LOOP-  
SHAPING FOR A DISC DRIVE  
SERVO CONTROL SYSTEM  
Docket No.: S01.12-0787

Appeal No. ---

Group Art Unit: 2651

Examiner: Andrew L.  
Snieszek

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REPLY BRIEF

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29<sup>th</sup> DAY OF OCTOBER, 2004.

*A. Rego*  
PATENT ATTORNEY

Sir:

This is in response to the Examiner's Answer dated September 1, 2004.

In Section 11 of the Examiner's Answer, the Examiner states that "the claimed invention does not set forth any limitations directed to 'normal operation of the disc drive' as the Appellant argued." As noted in the Appeal Brief, the Examiner provided a definition for real-time as being the actual time in which a physical process under computer study or control occurs. Based on this definition of real-time, Appellant simply clarified that vibration reduction during normal operation of the disc drive is the physical process under computer control.

In section 11 of the Answer, the Examiner also suggests that the "deactivation of all notch filters" required in the vibration filtering system of Ottesen is part of a "real-time" process that includes re-activation of the notch filters. In support of this suggestion, the Examiner states that "it is clear from figure 6A, 6B that once the initial coefficient values are

determined and the notch filter is activated (step 218) subsequent iterations are performed while the notch filters are active." (Emphasis Added). The "subsequent iterations," that the Examiner is referring to, simply indicate that, after deactivation of all notch filters at step 202 (FIG. 6A of Ottesen), the notch filters are activated one at a time. Step 218 (FIG. 6B of Ottesen) clearly indicates that a specific notch filter is activated during each iteration of the notch filter activation process. Indicating that the deactivation of all notch filters takes place in a single step, and that the activation of the notch filters is an iterative process, does not contradict the Appellant's position that, in Ottesen, the deactivation of all vibration filtering elements (notch filters) and the reduction of the spindle velocity will not allow for the vibration filtering process (the physical process under computer control) to be carried out in real-time (the actual time in which a physical process under computer study or control occurs).

For the above reasons, and for reasons included in the Appeal Brief filed on May 19, 2004, Appellants respectfully submit that claims 1-4, 9, 11-12, 15-20 and 25 are neither taught nor suggested by the references cited by the Examiner. Thus, Appellants respectfully request that the Board reverse the Examiner and find all pending claims allowable.

Respectfully submitted,

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